



ALL STRUCTURAL STEEL PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS

ANCHOR BOLTS SHALL BE THREADED 75 mm. PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX.NUT PER BOLT. CHAMFER TOP OF ANCHOR BOLTS PRIOR TO THREADING.

ALL MATERIAL EXCEPT PINTLES, ANCHOR BOLTS, NUTS, WASHERS AND PINS SHALL BE MADE OF A709M GRADE 345W STEEL.

STEEL PINTLES SHALLL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL MATERIALS IN BEARINGS INCLUDING HOLD DOWN SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARINGS".

WHEN REQUIRED, HOLD DOWN DEVICES SHALL BE PLACED SYMMETRICALLY ABOUT LONGIT.  $\mathbb Q$ . OF FRAMING PLAN. MAXIMUM SPACING OF HOLD DOWNS SHALL BE AT ALTERNATE GIRDERS. HOLD DOWN DEVICE TO BE DESIGNED FOR MIN. UPLIFT CAPACITY OF 90 kN.

ALL DIMENSIONS ARE IN MILLIMETERS.

STATE OF WISCONSIN	
EPARTMENT OF TRANSPORTATION	
RUCTURES DEVELOPMENT SECTION	

HOLD DOWN DEVICES

APPROVED:

1/99